

ABSTRACT

Simultaneous illumination along each of multiple axis for panoramic viewing of a macroscopically-sized specimen such as a mouse along a single viewing axis is realized by dichroic mirrors. Selective control of illumination intensity and/or color(s) of, permissively, each of multiple illuminating lights along each of multiple illumination axis permits that different regions and phenomena, such as tumors, of the specimen as are induced to fluoresce at corresponding different colors and intensities will all appear clearly visible, and well balanced, in a composite image nonetheless to intrinsically being of greatly differing brightness. Color and intensity calibration of the well-balanced composite image in all its colors and all its regions may optionally be realized by one or more fluorescent image calibration step wedges. A rule, or grid, scale may be imposed upon the image by use of one or more masks. The resulting panoramic composite image contains a great deal of quantitative information, being optionally calibrated in any of dimension, scale, overall brightness, color temperature and/or the separate intensities of, permissively, each of several separate differently-colored fluorescent emissions.